

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
22 September 2005 (22.09.2005)

PCT

(10) International Publication Number  
**WO 2005/086597 A2**

(51) International Patent Classification: Not classified

[JP/JP]; c/o MATSUSHITA ELECTRIC WORKS, LTD., 1048, Oaza-Kadoma, Kadoma-shi, Osaka, 5718686 (JP).

(21) International Application Number:

PCT/JP2005/004870

GOUDA, Kazuo [JP/JP]; c/o MATSUSHITA ELECTRIC WORKS, LTD., 1048, Oaza-Kadoma, Kadoma-shi, Osaka, 5718686 (JP). KIRIHARA, Masao [JP/JP];

(22) International Filing Date: 14 March 2005 (14.03.2005)

c/o MATSUSHITA ELECTRIC WORKS, LTD., 1048, Oaza-Kadoma, Kadoma-shi, Osaka, 5718686 (JP).

(25) Filing Language: English

NISHIJIMA, Youichi [JP/JP]; c/o MATSUSHITA ELECTRIC WORKS, LTD., 1048, Oaza-Kadoma, Kadoma-shi, Osaka, 5718686 (JP).

(26) Publication Language: English

HYODO, Satoshi [JP/JP]; c/o MATSUSHITA ELECTRIC WORKS, LTD., 1048, Oaza-Kadoma, Kadoma-shi, Osaka, 5718686 (JP).

(30) Priority Data:

2004-071514 / 12 March 2004 (12.03.2004), JP  
2004-341136 / 25 November 2004 (25.11.2004), JP

[JP/JP]; c/o MATSUSHITA ELECTRIC WORKS, LTD., 1048, Oaza-Kadoma, Kadoma-shi, Osaka, 5718686 (JP).

(71) Applicant (for all designated States except US): MATSUSHITA ELECTRIC WORKS, LTD. [JP/JP]; 1048, Oaza-Kadoma, Kadoma-shi, Osaka, 5718686 (JP).

(74) Agents: KAWAMIYA, Osamu et al.; AOYAMA & PARTNERS, IMP Building, 3-7, Shiromi 1-chome, Chuo-ku, Osaka-shi, Osaka, 5400001 (JP).

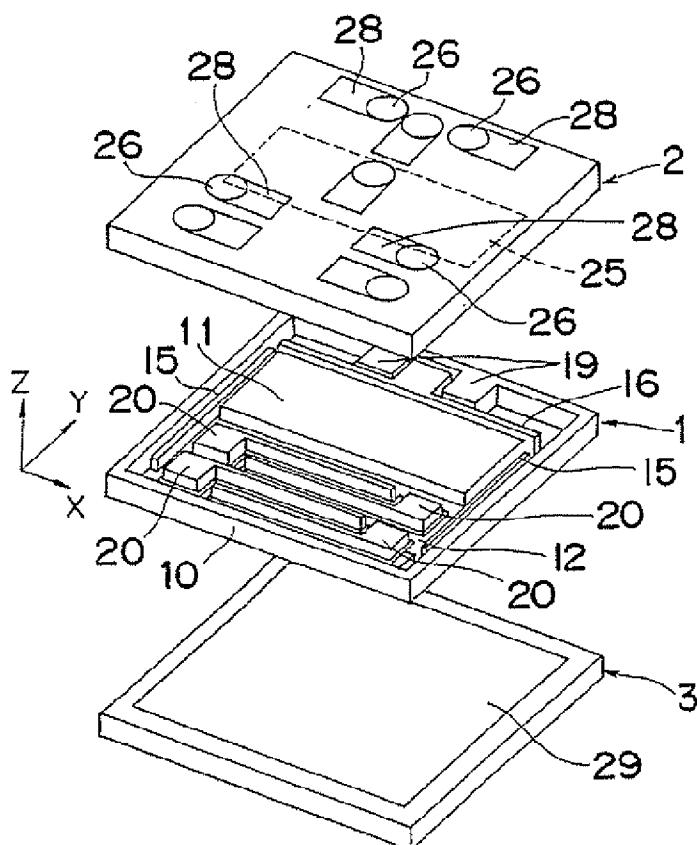
(72) Inventors; and

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,

(75) Inventors/Applicants (for US only): TSUJI, Koji

*(Continued on next page)*

(54) Title: GYRO SENSOR AND SENSOR APPARATUS USING SAME



(57) Abstract: Disclosed is a gyro sensor, which comprises a primary base plate (1) and a support base plate (2) which are superimposed on one another. The primary base plate (1) is provided with a driven mass body (11) to be driven in such a manner as to be vibrated in a direction intersecting with a surface of the support base plate (2), and a detection mass body (12) coupled with the driven mass body (11) through a drive spring (13) and adapted to be displaceable in a plane along the support base plate (2). Two detection springs (15) extending in the arranging direction of the driven mass body (11) and the detection mass body (12) are connected, respecti



CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) **Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SI, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.